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REAL ESTATE OUTLOOK

Vol. 1, No. 11 November 1988

A Monthly Forecast for the Economy and Real Estate

FORECAST SUMMARY

- The U.S. Commerce Department reported that the pace of economic growth, as measured by the inflation-adjusted Gross National Product, slowed during the third quarter to an annual rate of 2.2 percent, the slowest pace since the fourth quarter of 1986. Actually, the economy is much healthier than the recent GNP reports suggest, and the potential for rising rates of inflation remains strong.
- This slower growth report was accompanied by news that inflation (as measured by the GNP price index) reached an annual rate of 4.9 percent in the third quarter, virtually unchanged from the 5.0 percent rate of the second quarter.
- The monthly fluctuations in the trade deficit continue to cloud the issue of whether the U.S. merchandise trade balance is improving. The most recent data shows that the August U.S. trade deficit widened to $10.6 billion from $8 billion in July.
- The path of long-term interest rates, including those on fixed rate mortgages is expected to trend upward slightly through the first half of 1989. The economy will continue to expand through 1989, but as it does, wage and price pressures will increase. Mortgage interest rates are expected to creep above 11 percent before trending back down in mid-1989.
- Total starts of privately owned housing units reached a seasonally adjusted annual rate of 1.453 million units in September, 1.5 percent above August's rate of 1.431 million units, Starts of multi-family units rose 13.2 percent in September to an annual rate of 403,000 units. Single-family housing starts fell 2.3 percent in September to a seasonally adjusted annual rate of 1.05 million units. Housing starts are expected to hold steady through the rest of 1988 before slowing considerably next year, totalling 1.467 million units this year and 1.375 in 1989.
- Sales of existing single-family homes fell 2.2 percent in September to a seasonally adjusted annual rate of 3.63 million units. September's sales were up 5.8 percent from last September when existing homes were sold at a seasonally adjusted annual rate of 3.43 million units. For the first three quarters of 1988, existing home sales totaled 2.771 million units, just slightly above the 2.768 million units sold during the first nine months of 1987.

IN THIS ISSUE

- **An Open Letter: Economic Commentary, by John A. Tuccillo**
- **Outlook for the Economy and Real Estate, by Sean Burns and Beth Maerz**
- **Secondary Market Outlook, by Mary A. Fruscello**
- **Explaining Trends in Homeownership, by Daniel N. Chambers and Mary B. Schwartz**

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AN OPEN LETTER:

Economic Commentary

by
John A. Tuccillo
Chief Economist and
Senior Vice President
Real Estate Finance

Dear Mr. President:

Forgive my presumption in writing you, especially now in the hour of your triumph, to offer some thoughts on the economic future of the country. I know you have surrounded yourself with a dazzling array of economic talent, and I'm just a garden variety, trade association economist, but maybe a view from the outside can be useful. I don't have any specific plans to close the budget deficit or solve the thrift crisis, but I can suggest the overriding themes that must characterize the economic policies of your administration if you are to be successful. Now some of this may be a bit strong, but as Jim Hightower (the head of the Texas Department of Agriculture) notes, "The only things in the middle of the road are yellow lines and dead armadillos." So here goes.

1.*The 1990s begin with you.* For better or worse, the Reagan era is over, and you are really the first president of the Nineties. More importantly, you have virtually no control over the economy of 1989. The year will be one of slower, but positive growth against a background of stable inflation and interest rates that will move within a relatively tight band. So, let the Federal Reserve manage 1989 and think about the nineties and beyond. Concentrate on how we can use this economic expansion to make the investments in physical and human capital we need to make in order to enter the twenty-first century a resurgent power. Look to promote savings and find ways to channel those savings into productivity -- not into consumption, not into corporate takeovers and mergers.

2. *Make tough choices early.* You will be the beneficiary of an automatic (and illusory) improvement in just about every major problem facing this country. The growth in the Social Security trust fund will gradually wipe out the Federal deficit and may even soak up the national debt. Don't believe it. Make the real and permanent cuts in the deficit that will ultimately place the public fisc in order to reform the military procurement and pension systems to save money without sapping strength; use lower oil prices to raise revenue through an oil imports tax; look hard at all entitlements. But don't look at a falling budget deficit, a falling trade deficit and a growing savings rate and pronounce the world well and safe. Make the tough decisions and manage your good fortune into even more good fortune.

3.*Care a great deal about the financial system.* The thrift problem must have a systemic solution. Throwing money at the problem may clean up the current mess, but will do little to eliminate the causes. We are overbanked as a nation. If oil had stayed at $40 a barrel, and the Texas debacle had never hit the industry, we would still be witnessing a sharp reduction in the number of thrifts and banks. Yes, solve the thrift crisis as quickly as you can. But seek a solution that will allow for the *orderly* winding down of an industry where there are just flat-out too many firms.

4. *Listen to the people.* We've spent twenty years learning that top-down solutions can only skim the surface of national problems. In so many cases -- housing, education, infrastructure -- problems are local and solutions need to originate there. The Federal government is a marvelous amasser and distributor of resources and information, but a dismal administrator of local-level programs. Stand up and say this publicly and then act on it. Find out how local governments, firms and individuals are getting things done and then funnel resources and information to the local level so it happens everywhere. You were elected by appealing to 50 different states where your tactics and message were tailored to local conditions. Run national economic policy the same way.

Well, that's my contribution. I think you face a difficult and exciting four years. There will be at least one recession before 1992; foreign investors will continue to buy stakes in America; the Federal deficit and the thrift problem must be worked through. But the fundamental strengths of the economy and the structure of the population will provide a strong and favorable background against which to deal with the problems. Good luck. The prospects are good, and the ideas available. Besides, given your silence on all these issues during the campaign, I'm confident you're ready to unveil a dazzling program.

Sincerely,
A Friend.

Outlook for the Economy and Real Estate

THE ECONOMIC OUTLOOK

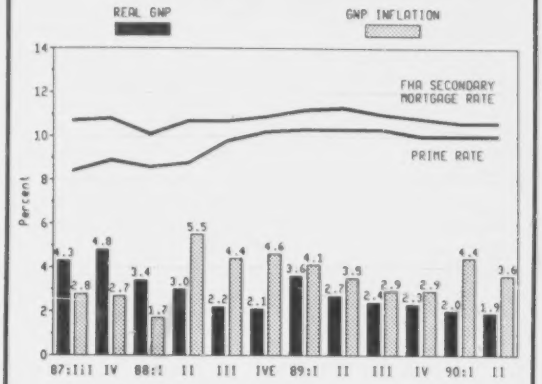
The U.S. Department of Commerce reported that the pace of economic growth, as measured by the inflation-adjusted Gross National Product, slowed during the third quarter to an annual rate of 2.2 percent, the slowest pace since the fourth quarter of 1986. The economy grew at an annual rate of 3.2 percent in the first half of 1988, but its rate of growth has slowed as the year has progressed: the 3.4 percent first quarter growth rate was followed by a 3.0 percent second quarter growth rate. These slower growth reports were accompanied by news that inflation (as measured by the GNP price index) reached an annual rate of 4.9 percent in the third quarter, virtually unchanged from the 5.0 percent of the second quarter. The succession of slower real GNP growth rates so far in 1988 suggests the economy may be losing some of its steam and that the threat of inflation is almost past. Actually, the economy is much healthier than the recent GNP reports suggest, and the potential for rising rates of inflation remains strong.

The slower rate of real GNP growth originated in slower economic activity in virtually all sectors. Specifically, this past summer's severe drought, a slowdown in federal defense purchases, and more modest gains in exports and capital spending combined to produce the decline. However, drought-related losses are hiding what continues to be a surprisingly strong economy entering its seventh year of expansion. The U.S. Department of Commerce has estimated that the total loss to the economy from the drought will be approximately $13 billion in 1982 dollars (inflation-adjusted terms). This past summer, a full $2.3 billion (at a quarterly rate) was subtracted from the second quarter real GNP estimate, and $3.7 billion was subtracted from the third quarter GNP estimate just released. The remaining losses will be used to reduce the fourth quarter real GNP estimate. In sum, the Department of Commerce reduced the third quarter estimate of real GNP growth by about 0.6 percentage points, and government economists plan to reduce the fourth quarter estimate (released in January 1989) by over one full percentage point.

Improvement in the Trade Deficit Pauses...

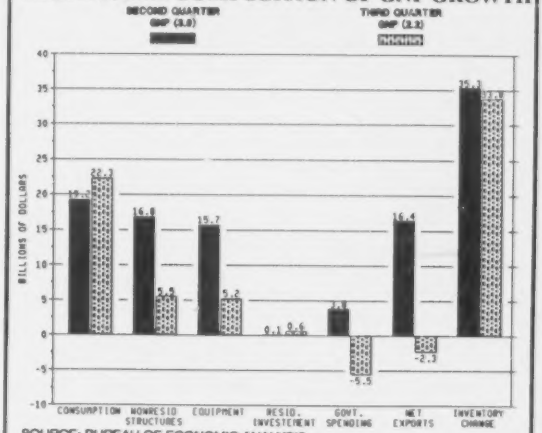
The monthly fluctuations in the trade deficit continue to cloud the issue of whether the U.S. merchandise trade balance is improving. The most recent data shows that the August U.S. trade deficit widened to $10.6 billion from $8 billion in July. The July gap was the smallest in over three years. A better way to evaluate U.S. trade performance is using a three month moving average of the trade deficit, centered on the month indicated in Graph 3. In the top frame, the sharp rise in exports from about September 1987 to April 1988 is clear; as is the much slower growth in imports during the same period. The bottom frame shows the net result over that period: a shrinking trade deficit. In the second quarter of this year, slower growth in Japan and West Germany has reduced the flow of U.S. exports to those countries, and has virtually stalled improvement in the trade deficit. In addition, the earlier growth in U.S. exports has created jobs and boosted incomes of American workers who are still attracted to imported goods.

GRAPH 1: THE ECONOMIC OUTLOOK



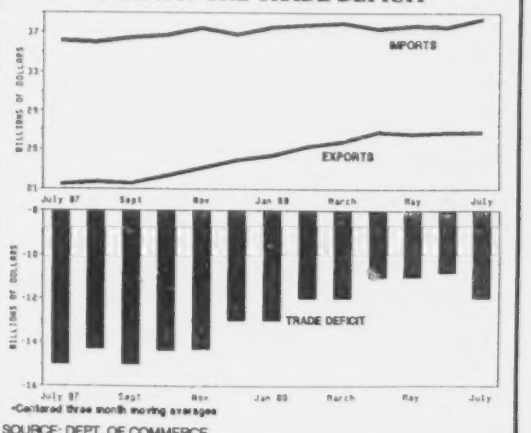
E NAR estimates (1988:III thru 1989:IV)

GRAPH 2: THE COMPOSITION OF GNP GROWTH



SOURCE: BUREAU OF ECONOMIC ANALYSIS

GRAPH 3: THE TRADE DEFICIT



*Centered three month moving averages

SOURCE: DEPT. OF COMMERCE

...And the Dollar Falls Again

The stutter step dance of the monthly trade figures has caused traders in international currency markets to push the dollar sharply lower from its early summer heights. Most of the decline has come recently, as U.S. interest rates have drifted lower. The Fed, apparently confident that the economy is not overheating, has refrained from further reducing the availability of credit, as it did on several occasions earlier this year. Without higher interest rates to attract them, international investors are not as willing to hold dollar-denominated assets. This has helped touch off another sustained drop in the value of the dollar in relation to the Japanese Yen. Consequently, both the Federal Reserve and the Bank of Japan have recently intervened heavily in currency markets, working together to maintain the value of the dollar near a floor of what appears to be about 125 Yen. In the days before the election, currency traders seem to have yielded to the wishes of the two central banks and have not mounted a concerted effort of their own to push the dollar lower.

Interest Rates

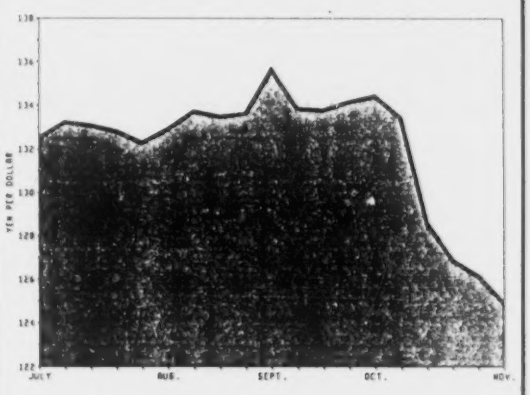
The path of long-term interest rates, including those on fixed rate mortgages is expected to trend upward slightly through the first half of 1989. The reason for this is closely tied to the assumptions in this forecast relating to the path of real GNP growth. While the third quarter GNP report suggested a pause in the rate of economic growth, it did not provide conclusive evidence of an extended slowdown. More likely, the economy will continue to expand through 1989; but as it does, wage and price pressures will increase. The likely result is a faster rate of inflation due to stronger domestic demand and a gradual decline in the value of the dollar. Therefore, mortgage interest rates are expected to creep above 11 percent before trending back down in mid-1989.

REAL ESTATE MARKETS

Housing Starts

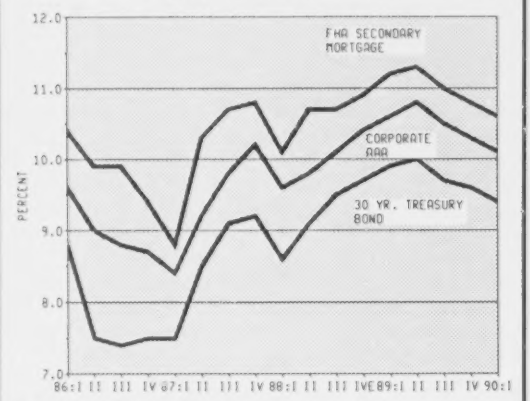
Total starts of privately owned housing units reached a seasonally adjusted annual rate of 1.453 million units in September, 1.5 percent above August's rate of 1.431 million units, and 13.5 percent below the September 1987 annual rate of 1.679 million units. For the past three months, changes in starts activity has been led by large moves in the rate of multi-family (two or more) starts. Starts of multi-family units rose 13.2 percent in September to an annual rate of 403,000 units, after falling 12.9 percent in August, and rising 9.6 percent in July. Meanwhile, the annual rate of starts of single-family units has been more constant. Single-family housing starts fell 2.3 percent in September to a seasonally adjusted annual rate of 1.05 million units. Comparing the first nine months of 1988 to those of 1987, total housing starts were down 10.5 percent to 1.143 million units. Starts of single family units totalled 838,500 units at the end of September, down 7.8 percent from the first nine months of 1987, while multi-family units dropped 17.3 percent to a total of 304,300 units. Housing starts are expected to hold steady through the rest of 1988 before slowing considerably next year, totalling 1.467 million units this year and 1.376 in 1989.

GRAPH 4: THE DOLLAR FALLS



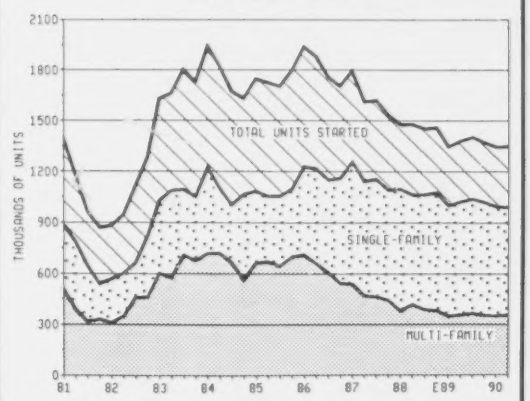
SOURCE: GENERALE DE BANQUE, NEW YORK

GRAPH 5: LONG-TERM INTEREST RATES



SOURCE: THE FEDERAL RESERVE BOARD

GRAPH 6: HOUSING STARTS



SOURCE: Bureau of Census; E NAR Estimates.

New Home Sales

New single-family homes were sold at a seasonally adjusted annual rate of 659 thousand units in September, falling 8 percent from August's rate of 715 thousand units. This marked the largest monthly drop in new home sales this year. The September slowdown is a reflection of buying decisions made during the summer, when homebuyers stepped up their purchases in the expectations of higher inflation and interest rates. Still, September sales were 2.3 percent above the 644 thousand unit annual pace of a year ago. Regionally, there were large movements in the rate of new home sales. The sales pace fell 27.8 percent in the South to a seasonally adjusted annual rate of 216 thousand units (the South's lowest rate in over a year) and rose 17.3 percent in the West to an annual rate of 258 thousand units. In the Northeast, sales were down 12.7 percent to a seasonally adjusted annual rate of 89 thousand units, while in the Midwest sales remained relatively unchanged, rising slightly by 1.0 percent to an annual rate of 96 thousand units. With respect to a year ago, sales fell 23.3 and 20.3 percent in the Northeast and South, respectively, while rising 24.7 in the Midwest and 42.5 percent in the West.

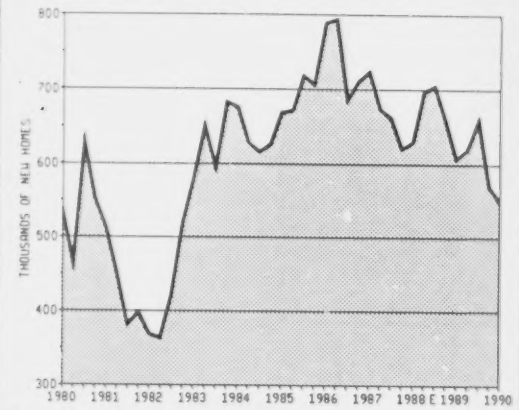
Existing Home Sales

Sales of existing single-family homes fell 2.2 percent in September to a seasonally adjusted annual rate of 3.63 million units. Sales of existing single-family homes have surpassed most expectations this year. For the first three quarters of 1988, existing home sales totaled 2.771 million units, just slightly above the 2.768 million units sold during the first nine months of 1987. Furthermore, September's sales were up 5.8 percent from last September when existing homes were sold at a seasonally adjusted annual rate of 3.43 million units. However, September's decline is further evidence that the surprisingly strong sales pace maintained during most of the year was partly borrowed from the fall and winter. Sales are expected to slow through the remaining months as many purchases that would have been made in the late fall and winter have already been completed during the summer. In addition, modest rises in interest rates are expected to have a sobering effect on the rate of home sales.

Home Prices

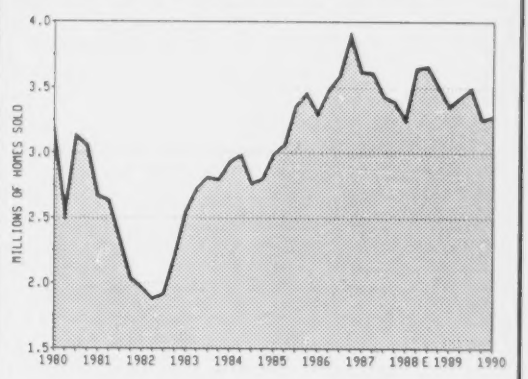
The median sales price of an existing single-family home dropped $2,900 in September to $88,500, 3.2 percent below the August median sales price of $91,400 and 3.5 percent above the $85,500 sales price of September 1987. The median price of existing single-family homes fell back to the level they were at prior to the strong homebuying of the summer: the September price was the lowest seen since April of this year. However, the median sales price of a new single-family home rose 8.1 percent in September to $118,900. September's median new home sales price was 11.2 percent above the median price of a year ago. A slowing in demand coupled with a rise in the new home median price is often the result of potential *new* homebuyers opting for less expensive *existing* homes, thereby skewing the new home sample in favor of high income homebuyers who normally purchase the more expensive new homes.

GRAPH 7: NEW HOME SALES



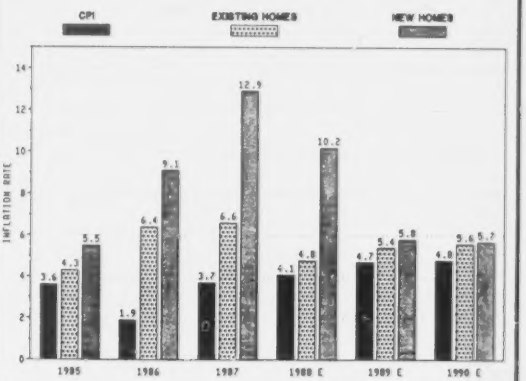
Source: Bureau of Census; E NAR Estimates

GRAPH 8: EXISTING HOME SALES



Source: NAR, E NAR ESTIMATES

GRAPH 9: HOME PRICES



Source:: NAR ECONOMICS AND RESEARCH, E NAR ESTIMATES

REGIONAL DATA

Housing Starts

After falling by 21 percent in the Northeast during August, and 16 percent in the Midwest, housing starts in these regions made moderate gains in September. Starts in the Northeast rose 3.9 percent to an annual rate of 212 thousand units, and rose 6.3 percent in the Midwest to an annual rate of 254 thousand units. However, with respect to a year ago, starts slowed by 16.9 percent in the Northeast and 17.8 percent in the Midwest. In the South, sales fell slightly, dropping 1.9 percent in September to a seasonally adjusted annual rate of 552 thousand units, which is 20.6 percent below the rate of housing starts in September, 1987. The housing market in the West continues to show strength, with housing starts moving up another 2.4 percent to an annual rate of 435 thousand units, 3.6 percent above last September's pace. Comparing the total number of housing units started during the first three quarters of 1988 to those of 1987, housing starts were down in all four regions, falling 10.8 percent in the Northeast to 186.2 thousand units, 10.6 percent in the Midwest to 209.3 thousand units, 11.5 percent in the South to 441.1 thousand units, and 8.9 percent in the West to 306 thousand units.

Existing Home Sales

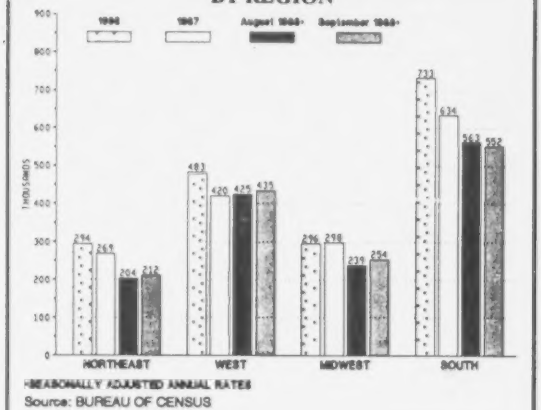
The West continued to provide the source of strength in existing single-family home sales during September. Following a 3.1 percent increase in August, home sales in September moved up 6 percent in the West to a seasonally adjusted annual rate of 710 thousand units, a remarkable 22.4 percent above the September 1987 pace. The strength of the West's housing market has been aided by the fear that local governments in that area are planning to restrict the development of new homes. As for the rest of the nation, sales fell in every region. Existing single-family homes were sold at an annual rate of 650 thousand units in the Northeast, down 5.8 percent from August and 3 percent from September of last year. Sales fell 3.2 percent in the Midwest to an annual rate of 900 thousand units and 2.8 percent in the South to a rate of 1.38 million units, gaining 1.1 and 7 percent, respectively, over the September 1987 rate.

Home Prices

The median price of an existing single-family home fell in every region across the nation during September. The median price in the Midwest fell 4.0 percent to $67,100, its lowest level in 1988 and 1.5 percent above its September 1987 level. Home prices in the Northeast fell by 3.5 percent to $141,400, 6.1 percent above the median price of a year ago. In the West, the median price dropped 2.0 percent to $124,300 (7.1 percent above last September's price), and in the South existing home prices fell 1.2 percent to $82,400 (3.6 percent higher than a year ago).

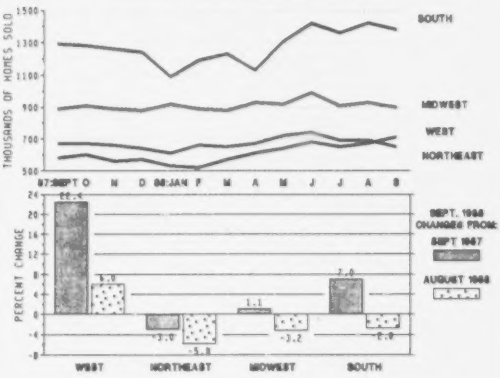
Sean A. Burns
Director of Forecasting
Beth M. Maerz
Research Associate
Forecasting & Policy Analysis Division

GRAPH 10: HOUSING STARTS BY REGION



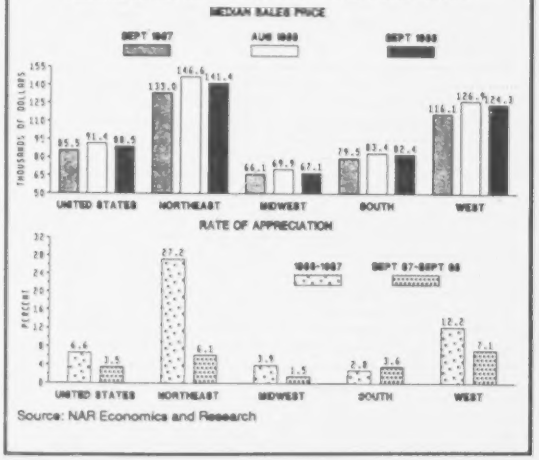
SEASONALLY ADJUSTED ANNUAL RATES
Source: BUREAU OF CENSUS

GRAPH 11: EXISTING SINGLE-FAMILY HOME SALES BY REGION



Source: NAR Economics and Research.

GRAPH 12: HOME PRICES BY REGION



Source: NAR Economics and Research

SPECIAL SUPPLEMENT: THE FSLIC CRISIS

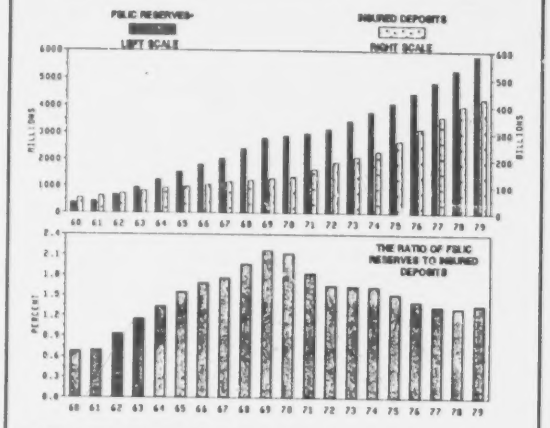
Stories of the rising number of failed thrifts and their often ill-advised investment strategies have focused public awareness on the issue, bringing with it questions concerning the cost of bailing the S&L's out, and highlighting the Federal Savings and Loan Insurance Corporation's (FSLIC) inability to do so. In this special supplement, we offer a concise description of how the crisis developed, and how much experts have estimated it will cost to resolve it.

While some commentators claim that mismanagement and irresponsibility by the FSLIC are the cause, a more careful analysis reveals that the reasons go much deeper, rooted in the rapidly changing environment in which the savings and loan industry has operated for more than a decade. From 1934 to the 1970s, the overall stability of the thrift industry was ensured by a strong demand for mortgages, strict regulations on banking activities, and moderate inflation which, for the most part, led to relatively stable interest rates and good portfolio management. Meanwhile, the FSLIC built up healthy reserves as the value and number of the deposits it insured increased (see graph 1). For four decades the FSLIC lived up to its expectations; bank runs became a villain of the past, the thrift industry ran smoothly with few surprises, and insolvent thrifts were closed quickly and quietly.

The inflation of the 1970s drove interest rates above the interest rate ceilings on thrift's deposits, forcing thrifts into a liquidity crunch, as depositors moved their money into higher yielding money market mutual funds (a market share which the thrifts would never regain). In response, Congress raised the interest rate ceilings in 1980. However, most thrifts held only long-term, fixed rate mortgages, and many S&L's were forced to pay a higher rate on deposits than they were earning on their mortgage portfolios (see graph 2): a recipe for financial disaster. In 1982, the thrift industry was further deregulated, allowing thrifts greater freedom in the type of loans they could offer, and the gap between their cost and return on funds narrowed and eventually reversed; the growing financial crises in the savings and loan industry did not. As many thrifts scrambled to diversify their portfolios out of home mortgages and into every thing from office buildings to fast-food restaurants, they traveled into unfamiliar and risky territory. Futhermore, many claim that the backwards direction in which the thrifts were deregulated (their liabilities before their assets) did irreperable damage. Finally, the fall in oil prices devastated the thrifts holding large portions of their portfolio in the South West. Lacking both the money and the staff, the FSLIC was incapable of supervising, let alone liquidating or merging, all of the struggling thrifts, leaving many insolvent ones in operation.

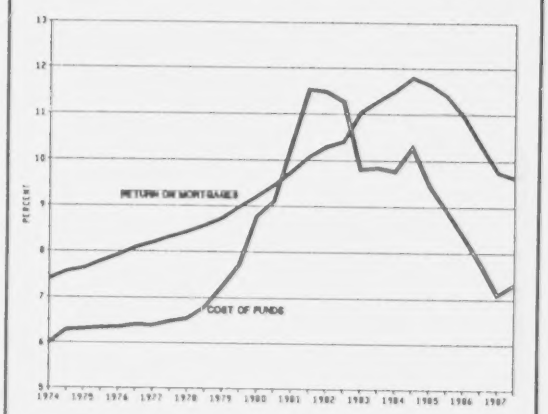
Graph 3 indicates that while thrift closures have increased by 55 percent from 1982, the number of insolvent thrifts has risen by 333 percent. Today, the FSLIC faces over 300 insolvent thrifts who are threatening the entire industry by bidding up the interest rates on deposits in their desperate attempt to attract funds. The real danger is that these institutions have nothing left to lose and they are making increasingly riskier loans on the odds that if the loan turns a profit they win, and if it doesn't the FSLIC loses.

GRAPH 1: THE HISTORY OF THE FSLIC



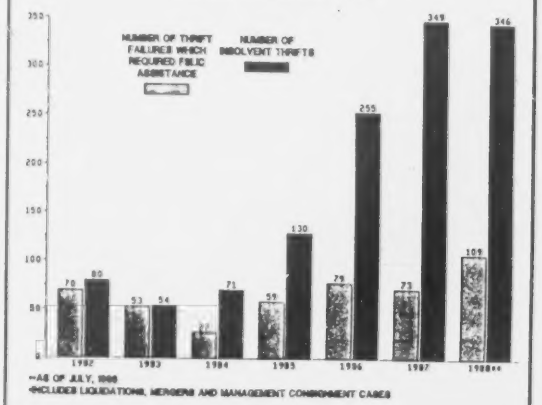
SOURCE: FEDERAL HOME LOAN BANK BOARD

GRAPH 2: THRIFT'S COST OF FUNDS RISE



SOURCE: FEDERAL HOME LOAN BANK BOARD

GRAPH 3: THE NUMBER OF INSOLVENT THRIFTS IS RISING



*AS OF JULY, 1988
**INCLUDES LIQUIDATIONS, MERGERS AND MANAGEMENT CONSIGNMENT CASES

SOURCE: FEDERAL HOME LOAN BANK BOARD

Most analysts agree that insolvent thrifts should be closed as quickly as possible to avoid further losses, and there is a general consensus that the savings and loans need to be more closely regulated to ensure that a crisis of this magnitude never happens again. But that's about as far as the agreements go. Cost estimates for closing the more than 300 insolvent thrifts range from $40 billion to over a $100 billion, and when the discussion turns to who will actually pay for the closures, the chances for an expedient, as well as effective, solution look very slim.

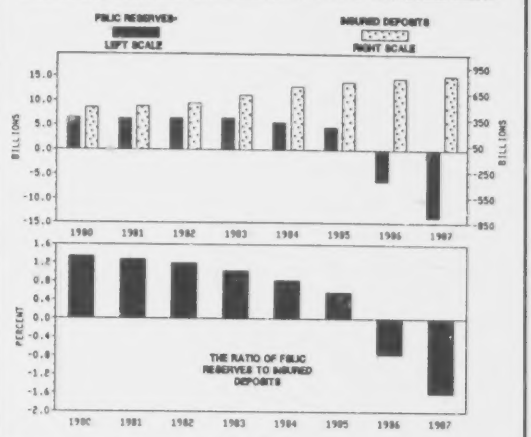
Many argue that the thrifts caused the problem and they should be the ones to clean it up. However, this is not a practical solution, as the thrift industry lacks the means to heal itself. To demonstrate, Graph 4 illustrates the deterioration of the FSLIC fund over the past seven years, which ended 1987 $13.7 billion in debt. If the thrift industry is made to pay, the cash would have to come from the thrifts in the form of an additional insurance premium or special assessment. But, the thrift industry is broke, having grossed a negative $3.6 billion in the second quarter of 1988. In addition, thrifts already pay twice the insurance premium charged to banks insured by the FDIC, and the U.S. League of Savings Institutions estimates that last year the special assessments forced approximately one hundred profitable thrifts into insolvency, meaning that additional charges will only aggravate the problem. Finally, rising special assessments would likely encourage the more healthy, well capitalized thrifts to search for loopholes in the moratorium on converting to FDIC insurance, and make the switch.

Another solution offered, is to merge the FSLIC and the FDIC, pushing some of the cost burden onto FDIC-insured banks. The banks, arguing against this, have asserted that it is unfair to expect them to pay for the mistakes of the thrift industry while they themselves were playing by different, and often stricter, rules and standards. Futhermore, banks have also suffered in recent years, and the FDIC's reserves (which were used to close some 200 banks this year) are not as strong as they have been or should be (see graph 5), leading many to fear that a merger between the FDIC and the FSLIC could jeopardize the entire banking system.

The list of possible solutions includes a taxpayer bailout. So far, however, congress has been unwilling to commit the tax payer to a FSLIC bailout, whose deficit at the end of 1988 is estimated in the range of $20 to $50 billion. The growing concern is that the longer insolvent banks are allowed to stay in operation, the larger the crisis will grow. Over the past five years, FSLIC aided bailouts have become more expensive. In 1982, the FSLIC paid out 6 cents for every dollar of assets held by the thrifts it closed down. Today this ratio has risen to almost 50 cents per dollar asset. The longer a solution is discussed and not implemented, the more costly it will become.

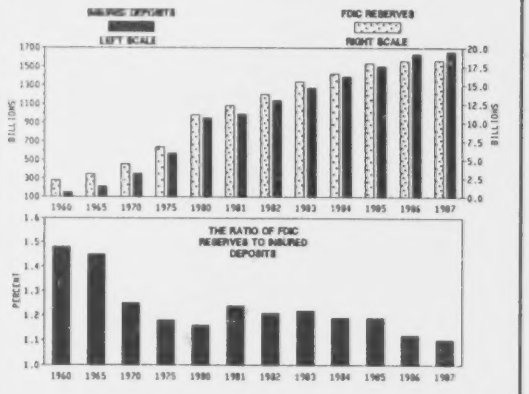
Beth Maerz
Research Associate
Forecasting & Policy Analysis Division

GRAPH 4: FSLIC RESERVES ARE IN THE RED



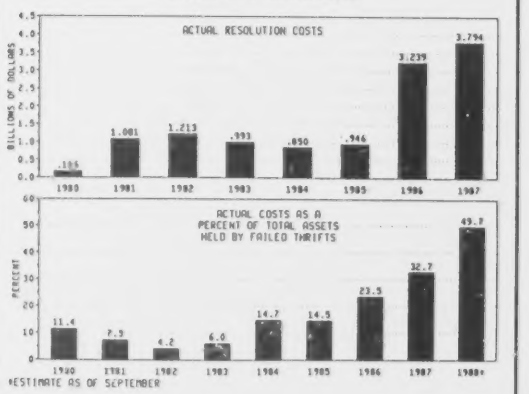
SOURCE: FEDERAL HOME OAN BANK BOARD

GRAPH 5: THE RESERVES OF THE FDIC



SOURCE: THE FEDERAL DEPOSIT INSURANCE CORPORATION

GRAPH 6: THE GROWING COST OF THRIFT FAILURES



*ESTIMATE AS OF SEPTEMBER

SOURCE: FEDERAL HOME LOAN BANK BOARD

SECONDARY MARKET OUTLOOK

by
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This year has been one of consolidation for the mortgage lending industry. Originations of new mortgage loans are off by an estimated 30% over last year. The initial reaction of lenders has been to reduce staff and close offices. The follow-up strategy, now well underway, appears to be expansion of product sources through wholesale mortgage production.

Wholesale mortgage lending is the purchase of mortgages, including servicing, for resale in the secondary market. Wholesalers establish correspondent networks with mortgage bankers, brokers and even institutional lenders by offering programs in which loans are originated and sold in pools as small as individual loans. The wholesaler aggregates loans and packages them for sale directly to investors, including Fannie Mae and Freddie Mac, as well as Ginnie Mae pools. Like a traditional mortgage banker, the wholesaler retains the servicing on the loans it sells.

Wholesale mortgage banking became popular with large institutional lenders in the early eighties. Traditional retail lending, in which the lender uses its own loan originators to produce loans for portfolio or sale, requires investment in recruiting, training and management. When interest rates began declining several years ago, retail lenders experienced high staff turnover, as new market entrants stole high volume loan producers to buy their way into the rapidly expanding mortgage origination market.

Retail mortgage lending also requires the lender to develop a customer base with borrowers (or REALTORS®), directly in competition with other retail lenders.

Wholesale mortgage banking offers the ability to expand the lender's mortgage acquisitions by "contracting out" originations to independent loan producers. These correspondents develop their own customer base to whom they market the wholesaler's product lines. Loans are delivered to the wholesaler for approval and funding.

Wholesale programs offer a variety of options to correspondents. Typically, wholesalers buy FHA and VA loans on a short term commitment basis; that is, the loans have already been closed when the commitment is issued, and delivery is immediate, often within a week. Servicing is usually priced separately, and prices may be negotiated with the wholesaler.

Conventional loan programs generally offer longer term commitments, and a variety of options under which loans may be delivered. Wholesalers may pre-approve a loan application, and offer a "registry" system under which a pre-approved loan must be delivered if it is closed. This is an attractive option for the originator, who is guaranteed a price/rate but is not required to deliver if the loan does not close.

The advantages of wholesale mortgage lending for originators are several: they have access to a wide variety of programs (many deal with several wholesale firms), they have "flow-funding" --funding for individual sales of loans--for servicing released sales, and with some wholesalers, they can close loans in the wholesaler's name, rather than drawing down on their own lines of credit. Even large volume originators and portfolio lenders use wholesale mortgage programs to dispose of mortgages they may originate in small volume, or loans with coupons too small to pool into securities that will bring an adequate price in the secondary market.

Wholesalers, by virtue of the volume of product they purchase, can aggregate large volumes of loans which are generally more profitable to sell. They can also reach into distant markets efficiently, and with overnight delivery service, offer underwriting and processing services with turnaround times competitive with local lenders.

Wholesalers have some specialized problems, however. Correspondents are not employees, and are notoriously price-sensitive and fickle. There is little loyalty to a particular wholesaler, and a customer base can erode very quickly as a competitor wholesaler offers better pricing or more attractive underwriting. Competitive pressures have prevented some wholesalers from being able to charge fees for commitments, and enforcing delivery requirements may be difficult because there is often limited means to determine whether a registered loan was in fact closed.

Thus, purchase activity--the volume of mortgages a wholesaler buys--can vary substantially and may be difficult to control or maintain. This makes risk management and control of the production pipeline more difficult for wholesalers than for traditional retail lenders.

For these reasons, many wholesalers believe that a strong retail lending business is necessary to support wholesale activity and maintain a minimum level of production.

The effect for homebuyers and REALTORS® of increased wholesale mortgage banking should be positive. Wholesale outlets offer even small originators the ability to compete by providing access to the secondary market and the opportunity to sell mortgage servicing. Because they act as aggregators, wholesalers often can provide outlets for a broad range of mortgage types and for specialized mortgage products that may not be sellable in small volume or to traditional mortgage investors.

Wholesale mortgage programs offer an important outlet for boutique mortgage lenders, who can respond to market demands for specialized products using wholesale outlets. As the traditional secondary market has focused increasingly on standardized mortgage types, this alternative has become increasingly important, particularly in areas of the country where market conditions and sophisticated consumers have created greater need for mortgages beyond plain vanilla.

Competition among wholesalers for correspondents has intensified. For homebuyers, this should mean greater choice, more attractive pricing and better service in financing their homes.

EXPLAINING TRENDS IN HOMEOWNERSHIP

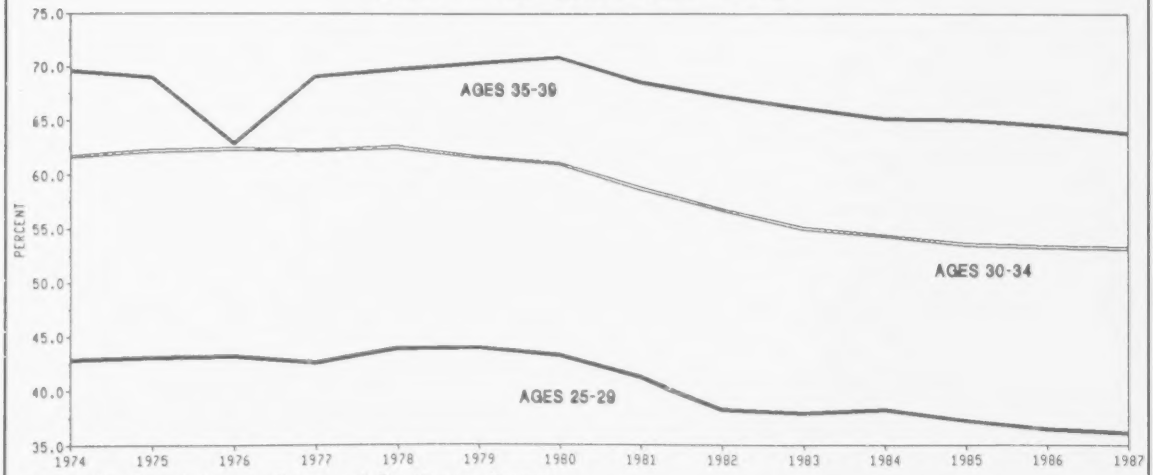
Since the end of World War II, the U.S. has become increasingly a nation of homeowners. From 1950 to its peak in 1980, the homeownership rate grew from 55 to over 65 percent. Since 1980, however, the homeownership rate has been declining. Although the rate is still above the post-war low and is in line with the rates experienced during the late 1960s, the homeownership rate at the end of the current decade will probably be lower than the rate in 1980.

The 1.6 percentage point decline in the aggregate homeownership rate from 65.6 percent in 1980 to 64.0 percent in 1987 masks the acute declines experienced by some subgroups. See Chart 1. For example, the percentage of households in their prime buying years of 25 to 29 years who owned homes declined 7.4 percentage points between 1980 and 1987, from 43.3 percent to 35.9 percent. For households between 30 and 34 years, the decline was 7.9 percentage points, from 61.1 percent to 53.2 percent. The homeownership rate of households age 35 to 39 has generally been, and continues to be, slightly higher than the aggregate homeownership rate.

The aggregate homeownership rate is affected by a variety of phenomena including the population's demographics, social norms, prevailing economic conditions and households' preferences for homeownership. Specifically, in the absence of any offsetting changes, each of these factors (although the list is not exhaustive) is associated with affecting the demand for homeownership.

- *Income* – Rising household incomes increase the rate of homeownership.
- *House Prices* – Rising home prices impede the ability of many prospective buyers to attain homeownership. At the same time, the prospect of future increases in home prices attracts buyers.
- *Homeownership Costs* – Changes in the ongoing costs associated with homeownership also impact homeownership. These costs include the after-tax cash cost, which is mortgage interest, property taxes, insurance, fuel and utilities and maintenance, reduced by the tax savings associated with homeownership. Total costs also include some items not actually "paid" each year in the literal sense. That is, total costs are the after-tax cash cost plus opportunity cost of downpayment and amortization of fees and closing costs, less expected equity buildup.
- *Age Profile of the Population* – Since older households typically have higher rates of homeownership, the greater the proportion of households in older age groups, the higher the aggregate homeownership rate.
- *Shifts in Household Composition in the Population* – Since married households typically have higher homeownership rates, the greater the proportion of "marrieds" in the population, the higher the aggregate homeownership rate.

CHART 1: HOMEOWNERSHIP RATE



Source: The Annual Housing Survey and The Housing Vacancy Survey, Bureau of the Census.

TABLE 1
HOME OWNERSHIP, INCOME AND AFFORDABILITY
(ALL HOUSEHOLDS)

	Home Ownership Rate	Median Household Income (86$)	% Change	Existing Home Price (86$)	% Change	Composite Affordability Index	Median 1st-Time Buyers Afford. Index
1974	64.6	28,687		66,744		130.3	-
1975	64.7	27,949	(2.6)	68,155	2.1	123.5	-
1976	64.8	28,811	3.1	69,566	2.1	125.8	-
1977	64.8	28,966	0.5	73,515	5.7	120.6	-
1978	65.2	29,647	2.4	77,743	5.8	111.4	-
1979	65.5	29,588	(0.2)	81,414	4.7	97.2	-
1980	65.6	27,974	(5.5)	82,095	0.8	79.9	-
1981	65.3	26,991	(3.5)	80,227	(2.3)	68.9	-
1982	64.7	26,618	(1.4)	77,188	(3.4)	69.5	50.6
1983	64.9	27,155	2.0	77,495	(0.4)	83.2	59.4
1984	64.4	27,903	2.8	76,552	(0.8)	89.1	64.9
1985	63.9	28,269	1.3	77,120	0.7	94.8	68.3
1986	63.8	29,458	4.2	80,300	4.1	108.9	75.6
1987	64.0	N/A	N/A	82,358	2.6	113.8	80.6

Sources: Homeownership rates from the *Annual Housing Survey* and the *Housing Vacancy Survey*, Bureau of the Census. Household income from *Current Population Reports*, Series P-60, No. 154, Bureau of the Census. Home prices and affordability

Each of the above factors, and how they have changed from the mid-1970s through the present, explain some of the homeownership rate's steady increase through 1980, and subsequent fall thereafter. Below we examine more closely the determinants of homeownership and what housing analysts have found as to their relative importance.

Income, House Prices and Affordability

Not surprisingly, household income has been found to have a positive impact on the probability of a household's choosing homeownership. Moreover, the preponderance of evidence suggests that rising real incomes *over time* during the mid- and late 1970s were at least partially responsible for the rising homeownership rate in the latter 1970s. In the same vein, the negative growth in real household income during the opening years of the 1980s (see Table 1) is partially responsible for the decline in the homeownership rate.

Rising incomes are only part of the affordability puzzle, though. Are incomes rising fast enough to compensate for simultaneously rising home prices? Each month NAR puts out two estimates of housing "affordability": an index for all homebuyers and an index designed to represent first-time homebuyers. Both measure the relationship between median household income and the income needed to qualify for a mortgage loan on a median price home.[1]

Table 1 shows the trend over the 1970s and the 1980s in real house prices as well as the Housing Affordability and First-Time Buyer indexes. Affordability, as measured by the composite housing affordability index, declined steadily during the 1970s and the beginning years of the 1980s, but began to rebound after 1982. In fact, 1986 represented the first time since 1978 that the index was above 100. While the composite index augured well for prospective homebuyers, the first-time buyer affordability index effectively points out the plight of first-time homebuyers. Although rising since 1982, first-time homebuyers' 1987 incomes remain nearly 20 percent below that needed to qualify for a mortgage loan on a starter home.

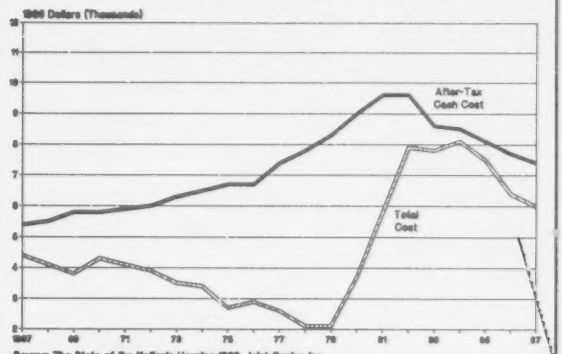
Cost of Homeownership

The affordability indexes capture the ability of a typical household to qualify for a typical home. Another angle on affordability is the ongoing cost of homeownership. A true estimate of the cost of homeownership incorporates not only the observable cash outlays but also the indirect costs and tax benefits of homeownership. The "after-tax cash cost" of homeownership is the sum of several on-going cash outlays (including mortgage interest payments, fuel and utility costs, maintenance and repairs, real estate taxes and insurance) less the income-tax savings of homeownership. The income-tax benefits include a household's ability to deduct mortgage interest and real property taxes in calculating taxable income and its ability to defer capital gains taxes upon home sale.

A broader measure, "total homeownership cost", includes the after-tax cash cost of homeownership as well as two indirect costs of homeownership. First, since the funds used for a downpayment could have been invested in another income-producing asset, there is a cost associated with the foregone earnings. Second, there are

1 The first measure, Housing Affordability, bases the monthly principal and interest amount on a 20 percent downpayment and the median price for all existing single family homes. Moreover, the median income is for all homebuyers, both first-time and repeat. Whereas, the other index, First-Time Homebuyer Affordability, bases its mortgage loan amount on a 10 percent downpayment and the median price of a starter home. The income used in its calculation is only that of first-time homebuyers (the first year of its calculation is 1982). A value of 100 for both the Housing Affordability and the First-Time Homebuyers Affordability indexes suggests that family income is sufficient to qualify for the mortgage loan. NAR's monthly report Home Sales:

CHART 2: HOMEOWNER COSTS (in 1986 Dollars)



Source: The State of the Nation's Housing 1988, Joint Center for Housing Studies of Harvard University, P.2 and Appendix Table 1.

the up-front fees and closing costs which accrue to the home acquisition and must be amortized (usually over the expected life of the loan, about 7 or 8 years). To reflect the true cost, this must be subsequently reduced by the expected annual equity buildup from house price appreciation. The rationale for this is that the increase in the *investment* value of the housing asset accruing to inflation reduces the cost of the asset.

Chart 2 illustrates the trends in both the after-tax cash cost and total cost of homeownership. The chart shows that both the after-tax cash cost and the total cost of homeownership, which have been declining slightly over the last five years, are still well above their levels in the 1960s and the early 1970s. During the period of rising real home prices in the 1970s (see Table 1), the total cost of homeownership was declining. So despite rising after-tax cash costs, declining total cost kept the investment-motivated demand for homeownership strong through 1979. The subsequent slowdown in the rate of home price appreciation (nationally) has kept total cost only slightly below after-tax cash cost in recent years.

In addition to absolute increases, homeowner costs are now higher in relation to rental costs than they were in the 1970s. The rapid run-up in mortgage rates in the early 1980s abruptly raised total homeowner costs relative to the more gradually rising rental costs. While the situation has improved for homeowner costs somewhat in recent years, these trends strongly suggest that higher homeownership costs (relative to rental costs) have contributed to the fall in the homeownership rate experienced in the 1980s. Indeed, one study suggests that nearly one-half of the rise in the homeownership rates of married couples under 45 between 1973 and 1979 and over one-half of the fall between 1979 and 1983 can be explained by the respective falling and rising of homeownership costs.[2]

One important component of homeownership costs is financing. While market mortgage interest rates have fallen continually since the early 1980s, the real costs of borrowing (market rates less the expected rate of inflation) have remained high by historical standards because inflation has fallen also. Thus, while the recent drop in the market rates has spurred some recent activity in home sales, etc., the cost of borrowing is still an obstacle to many prospective homeowners.

The "burden" of housing costs to first-time homebuyers, which is the cost of a representative housing unit as a percent of household income, remains historically high. This is true for both after-tax cash and total costs of homeownership to first-time homebuyers. Table 2 indicates that the cash burden, although currently lower than its 45 percent high in 1982, remains at almost one-third of household income in 1987. This is substantially higher than the cash burdens to first-time homebuyers of the early 1970s, which were closer to one-quarter of household income. Similarly, the total cost burden to first-time homebuyers, which was as low as nine percent in 1978, is currently over one-quarter of household income partially as a result of cooling house price appreciation since 1981.

Demographics

The distribution of total households in various age groups, income classes, household types, etc. impacts the homeownership rate. This is because certain subgroups of the population have historically demonstrated higher propensities to own their homes than others. Married couples, both with and without children, have historically had higher homeownership rates than other household

TABLE 2
FIRST-TIME HOMEBUYER COST BURDEN*: 1970 - 1987

Year	Cash Burden**	Total Burden***
1970	23.1%	17.0%
1975	27.8	11.4
1978	33.4	8.7
1979	37.0	9.5
1980	41.1	16.8
1981	44.5	27.1
1982	45.4	37.4
1983	40.0	36.7
1984	38.5	36.7
1985	36.3	33.7
1986	33.9	28.3
1987	32.4	26.2

*First-time Buyer Cost Burden is cost as a percent of income of potential homebuyer proxied by median family income of married couple renters aged 25 to 29.
**Cash burden is the after-tax cash cost of homeownership as a percent of income of "potential" homebuyers.
***Total burden is the total cost of homeownership as a percent of income of "potential" homebuyers.
Source: The State of the Nation's Housing 1988, Joint Center for Housing Studies of Harvard University, Appendix Table 1.

2 Donald R. Haurin, Patric H. Hendershott and David C. Ling, "Home Ownership Rates of Married Couples: An Econometric Investigation", Housing Finance Review, Summer 1988.

types. Similarly, older households typically have higher homeownership rates than younger households. Because of the differentials in homeownership rates between various subgroups, the aggregate homeownership rate can change as the population "ages", becomes "more married", etc. For example, between 1970 and 1985, the percentage of young singles has been steadily rising. In 1970, only 20 percent of all males between the ages of 25 and 29 were single; by 1980, just under one-third were single; and by 1986, over forty percent of all males age 25 to 29 were single. This rise is even more pronounced for young (age 25-29) females, only 11 percent of whom were single in 1970, but 28 percent of whom were single in 1986.

Table 3 presents the distribution of households over four household types--married, other family, single and other non-family. While there are still many more married households, the percent changes from 1970 to 1980 and from 1980 to 1987 for other family, single and other non-family households far surpass the growth in married households over the same periods. This demographic shift, from subgroups with high propensities to own their homes to those with historically lower propensities to own, explains some of the recent decline in the homeownership rate.

Conclusion and Future Prospects for Homeownership

The decline in the homeownership rate since 1980 has been associated with several trends in homeownership's causative factors. Worsening affordability, i.e., the ability of the typical household to purchase the typical house, has occurred with the confluence of lagging real incomes and rising real house prices. Also, the cost of homeownership has risen due to rising after-tax cash costs and reduced house price appreciation. Demographic shifts, such as the delaying of marriage and the general shift toward single households, have reduced the rate at which people become homeowning households. These trends have hit younger households, i.e., prospective first-time homebuyers, especially hard, explaining the acute drop in homeownership for them.

What does the future hold regarding homeownership? Because forecasting the trends in interest rates or inflation is such a tricky business, it is problematic to forecast trends in homeownership costs and house prices. And given the recent propensity to alter the tax code, we would hesitate to state that the current tax laws will persist. But if the tax law did remain, homeownership should not be greatly affected from that source; the adverse impact of the reduced value in homeowner tax deductions (from lower marginal tax rates) should be offset at least somewhat because rental housing took a much larger hit -- thus, rents should rise and owner-occupied housing will still look relatively attractive.

One area, though, where we can hazard a guess is regarding demographic trends. One relatively large effect on the homeownership rate stems from the rate of household formations. A recent study by the Joint Center for Housing Studies of Harvard University, *State of the Nation's Housing - 1988*, projects that in the years ahead, the aging of the baby boom generation and the emergence of the baby bust generation into their prime household formation years will cause a deceleration in annual household growth, which could adversely affect homeownership demand. Actual household growth averaged 1.51 million households a year from 1975 through 1980, and 1.31 million in the first half of the 1980s. Annual household growth is expected to average 1.45 million a year from 1985 to 1990, falling to 1.21 million a year in the early 1990s and 1.08 million a year in the late 1990s.

The State of the Nation's Housing - 1988 projects that despite decreasing household formations accompanying the aging of the baby-boomers, many baby-boomers are just now marrying and having children. Since marrieds with children tend to have a high propensity to own their homes, those who do not own will likely buy during the late 1980s and early 1990s, increasing the demand for homeownership somewhat. While over one-half of the baby-boomers already own homes, this aging of the baby-boomers and passage through their peak earning years in the late 1980s and early 1990s will make for a strong trade-up demand. Nonetheless, it is important to stress that a persistence of historically high homeowner costs and house prices will continue to make it difficult for households to make the transition to homeownership.

by
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Director of Housing Research
and
Mary B. Schwartz
Housing Economist

TABLE 3
HOUSEHOLDS, BY TYPE:1960-1987
(in thousands)

	Married Couple	Other Family	Single	Other Non-Family
1960	39,254	5,651	6,896	999
1970	44,728	6,728	10,851	1,094
1975	46,951	8,612	13,939	1,618
1980	49,112	10,438	18,296	2,930
1983	49,908	11,485	19,250	3,275
1984	50,090	11,907	19,954	3,456
1985	50,350	12,356	20,602	3,480
1986	50,933	12,625	21,178	3,722
1987	51,537	12,954	21,128	3,860
Percent Change				
1970-1980	9.8	55.1	68.6	167.8
Percent Change				
1980-1987	4.9	24.1	15.5	31.7

Source: Current Population Reports, Series, p-20, No.417, Bureau of the Census.

U.S. ECONOMIC OUTLOOK

NOVEMBER 1988

	QUARTERS								YEARS				
	ACTUAL		FORECAST						ACTUAL		FORECAST		
	88.2	88.3	88.4	89.1	89.2	89.3	89.4	90.1	1986	1987	1988	1989	1990
AGGREGATE ECONOMY													
Gross National Product (billions of dollars)	4824	4900	4982	5077	5154	5222	5290	5375	4240	4527	4857	5186	5494
% Change	8.7	6.4	6.9	7.9	6.2	5.4	5.3	6.5	5.6	6.8	7.3	6.8	5.9
% Change (w/out inflation)	3.0	2.2	2.1	3.6	2.7	2.4	2.3	2.0	2.8	3.4	3.8	2.7	2.3
Consumer Price Inflation (CPI)	4.8	4.7	4.4	4.9	4.8	4.6	4.6	5.5	1.9	3.7	4.1	4.7	4.8
GNP Inflation (GNP Deflator)	5.5	4.4	4.6	4.1	3.5	2.9	2.9	4.4	2.7	3.3	3.3	4.0	3.6
Unemployment Rate - Civilian	5.4	5.5	5.4	5.4	5.5	5.5	5.5	5.5	7.0	6.2	5.5	5.5	5.6
Civilian Employment-Household Basis (millions)	114.6	115.2	115.8	116.0	116.5	117.0	117.5	117.9	109.6	112.4	115.0	116.7	118.5
Percent change	1.5	1.9	2.0	0.9	1.7	1.7	1.7	1.4	2.3	2.6	2.2	1.6	1.5
Index of Industrial Production	136.0	138.2	139.4	139.4	140.2	141.1	141.9	142.2	125.1	129.8	137.0	140.7	143.4
Manufacturing Capacity Utilization	83.2	83.8	83.9	83.8	83.8	83.9	83.8	83.7	79.7	81.0	83.4	83.8	83.8
Domestic Auto Sales	7.5	7.6	7.2	7.2	7.2	7.2	7.2	7.0	8.2	7.1	7.5	7.2	7.0
Federal Tax Receipts (NIPA) as % of GNP	20.4	19.8	19.9	20.0	20.1	20.1	20.1	20.6	19.5	20.2	20.1	20.1	20.6
Federal Expenditures (NIPA) as % of GNP	23.1	22.4	22.7	23.0	22.9	22.8	22.8	22.9	24.4	23.7	22.9	22.9	22.9
Deficit(NIPA)	-133.3	-127.1	-141.1	-148.7	-144.8	-142.3	-143.8	-121.8	-205.6	-157.8	-139.1	-144.9	-124.4
as % of GNP	-2.8	-2.6	-2.8	-2.9	-2.8	-2.7	-2.7	-2.3	-4.9	-3.5	-2.9	-2.8	-2.3
REAL ESTATE MARKETS													
HOME SALES													
Total Single-family Home Sales (thousands, single-family resales plus 97 percent of single-family starts)	4674	4689	4550	4322	4415	4493	4238	4241	4712	4648	4557	4367	4232
Percent change -- year ago	-0.5	3.5	2.3	-2.0	-5.5	-4.2	-6.9	-1.9	10.8	-1.4	-2.0	-4.2	-3.1
Existing Single-family Home Sales (thousands)	3643	3657	3507	3353	3422	3486	3250	3276	3565	3528	3514	3378	3255
Percent change -- year ago	0.9	6.6	3.5	3.2	-6.1	-4.7	-7.3	-2.3	10.9	-1.1	-0.3	-3.9	-3.6
Housing Starts (thousands)	1481	1454	1458	1347	1382	1403	1371	1346	1812	1634	1467	1376	1365
Percent change -- year ago	-7.8	-10.2	-4.9	-8.8	-6.7	-3.5	-6.0	-0.1	4.1	-9.8	-10.2	-6.3	-0.7
Single-Family Units	1063	1064	1076	999	1024	1038	1019	995	1183	1157	1075	1020	1007
Percent change -- year ago	-6.5	-7.8	-1.3	-8.9	-3.7	-2.5	-5.3	-0.4	10.4	-2.2	-7.1	-5.1	-1.2
Multi-Family Units	418	389	383	348	358	365	352	351	630	477	392	356	358
2-4 Family Units	57	58	57	52	54	55	53	53	85	66	57	53	54
Percent change -- year ago	-20.4	5.4	1.8	-7.4	-6.5	-6.4	-8.0	0.8	-9.0	-22.6	-12.8	-7.1	0.7
5+ Family Units	360	331	325	296	304	310	300	298	545	412	335	302	305
Percent change -- year ago	-9.1	-19.1	-15.8	-8.5	-15.6	-6.4	-8.0	0.8	-5.6	-24.4	-18.6	-9.7	0.7
New Single-family Home Sales (thousands)	697	705	660	607	620	660	570	550	750	671	673	614	563
Percent change -- year ago	3.4	4.4	6.3	-3.7	-11.0	-6.4	-13.6	-9.4	9.0	-10.5	0.3	-8.7	-8.3
Mobile Homes Shipped (thousands)	219.7	216.3	226.4	217.0	221.6	227.2	231.1	228.9	245.5	232.8	217.3	224.2	233.4
HOME PRICES													
Existing Home Prices - Median $(1000)	88.9	90.2	91.9	92.6	94.3	95.1	96.0	97.1	80.3	85.6	89.7	94.5	99.8
Percent change -- year ago	4.5	5.5	8.1	5.5	6.1	5.4	4.5	4.9	6.4	6.6	4.8	5.4	5.6
New Home Prices - Median $(1000)	112.9	115.5	117.0	117.4	121.3	122.5	123.7	124.9	92.0	104.0	114.6	121.2	128.1
Percent change -- year ago	9.1	8.8	4.7	4.0	7.4	6.1	5.7	6.4	9.1	12.9	10.2	5.8	5.7
FINANCIAL MARKETS													
Long-Term Interest Rates													
30-year FRM (FHA Secondary)	10.7	10.7	10.9	11.2	11.3	11.0	10.8	10.6	9.9	10.2	10.6	11.1	10.7
1-year ARM (without buydown)	7.6	7.6	7.8	8.1	8.2	8.2	8.3	8.1	7.9	8.2	7.6	8.2	7.8
Corporate AAA Bond Rate	9.8	10.1	10.4	10.6	10.8	10.5	10.3	10.1	9.0	9.4	10.0	10.6	10.2
Government Bond Rate	9.1	9.5	9.7	9.9	10.0	9.7	9.6	9.4	7.8	8.6	9.2	9.8	9.4
Short-Term Interest Rates													
Federal Funds Rate	7.1	8.1	8.3	8.5	8.7	8.6	8.3	8.3	6.8	6.7	7.6	8.5	8.0
3-month T-Bill Rate	6.2	7.2	7.4	7.6	7.7	7.6	7.4	7.4	6.0	5.8	6.6	7.6	7.1
Prime Rate	8.8	9.8	10.2	10.3	10.3	10.3	10.0	10.0	8.3	8.2	9.4	10.2	9.7
Discount Rate	6.0	6.4	6.7	6.9	6.9	6.9	6.8	6.6	6.3	5.7	6.3	6.5	6.7
Value of the U.S. Dollar (Trade-Weighted Avg.)	90.4	97.6	93.4	90.5	89.5	86.5	83.8	82.8	112.3	96.9	92.9	87.6	82.0
Percent change	1.7	35.6	-15.9	-12.1	-4.4	-12.7	-11.7	-4.7	-21.6	-13.6	-4.2	-5.7	-6.4

Source: Forecast produced using Laurence H. Meyer and Associates' model of the U.S. economy.
Assumptions and simulations by Dr. John Tuccillo, Dr Frederick Flick, Sean Burns and Beth Maerz.

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